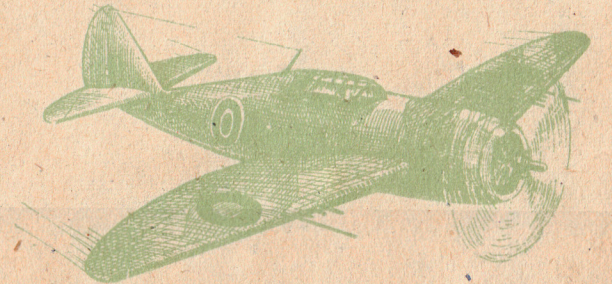


SUPPLEMENT TO HOBBIES No. 2524.

MODEL OF THE THUNDERBOLT

A SINGLE-SEAT FIGHTER AEROPLANE
SPAN—41 FT. LENGTH—32 FT. 8 INS.



The arrows indicate the direction of grain of wood.

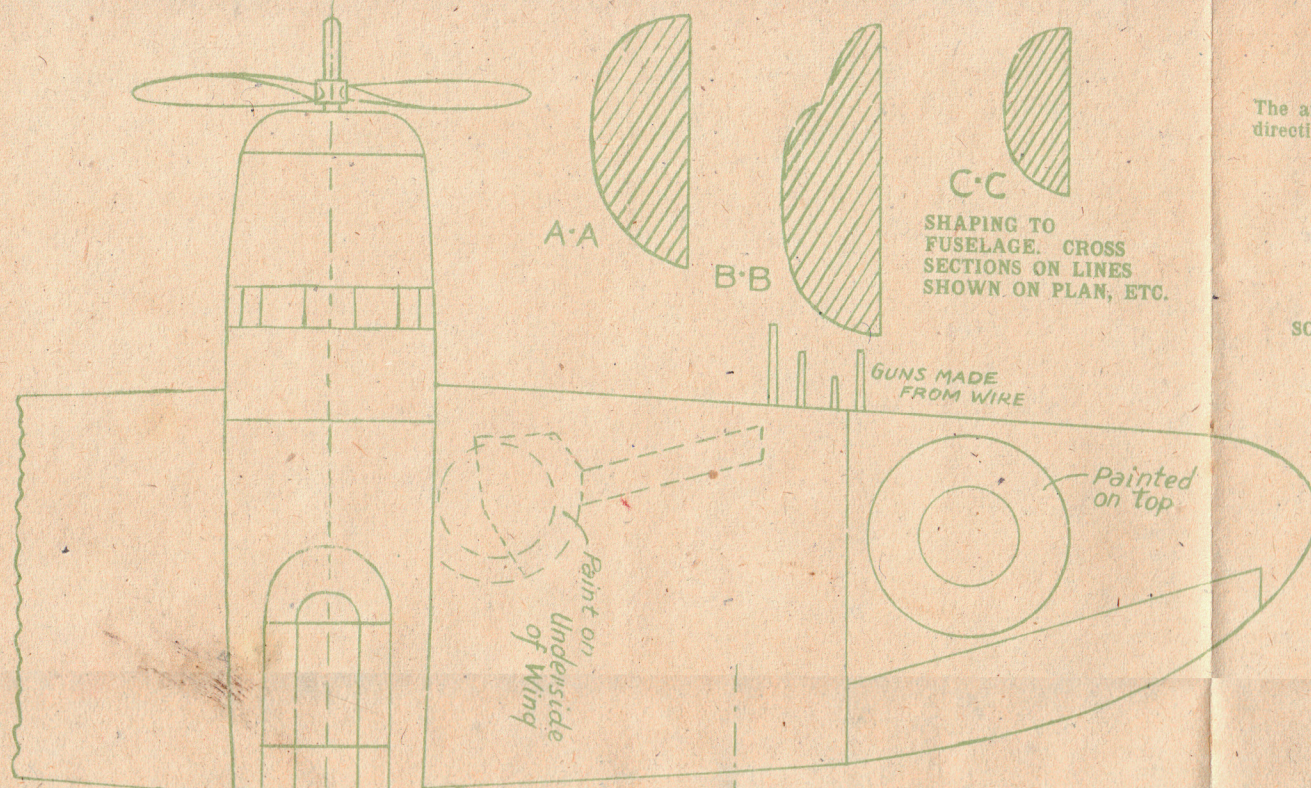
SIZE OF MODEL
SPAN 10 1/2 ins.
LENGTH 8 1/2 ins.
SCALE 1/4 in.—1 FOOT.

PANELS OF WOOD REQUIRED FOR THIS DESIGN

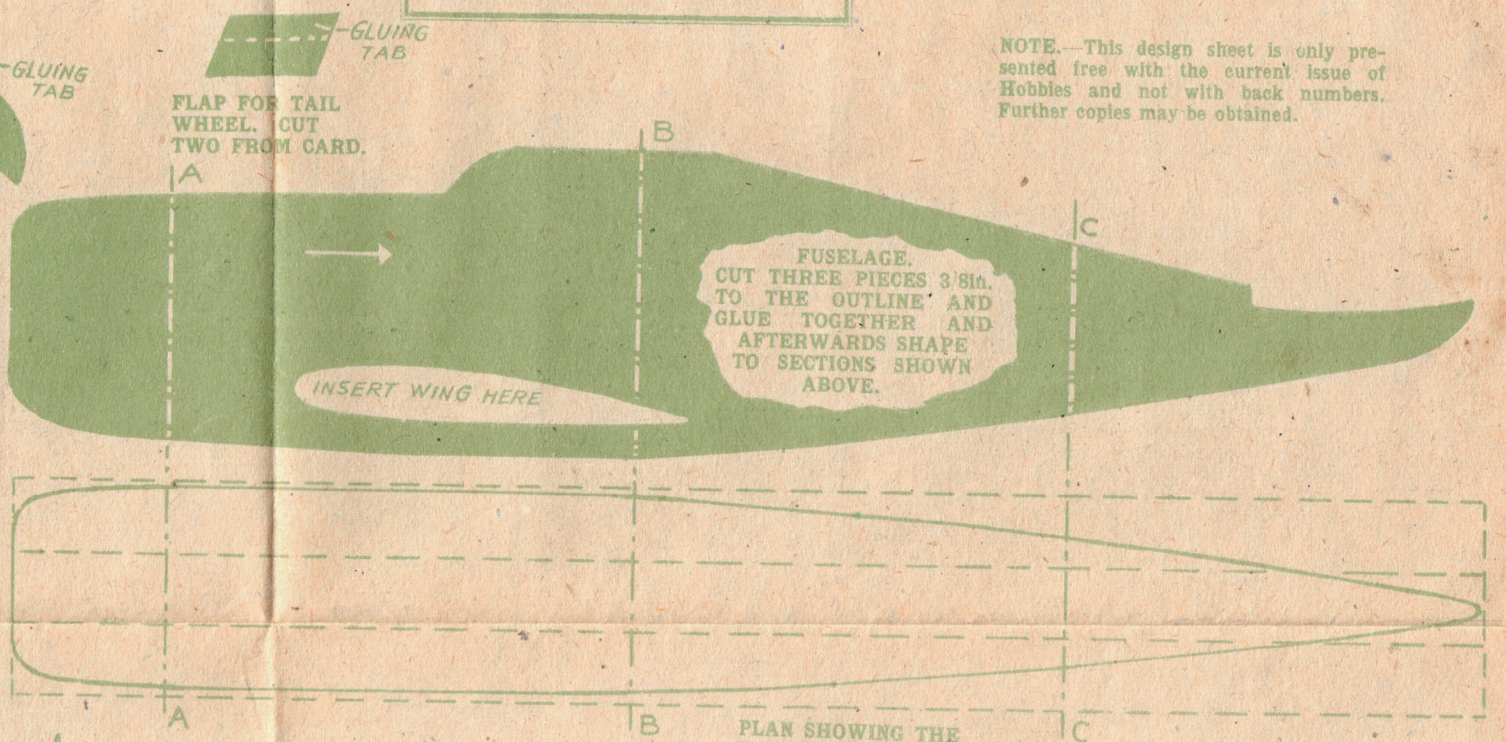
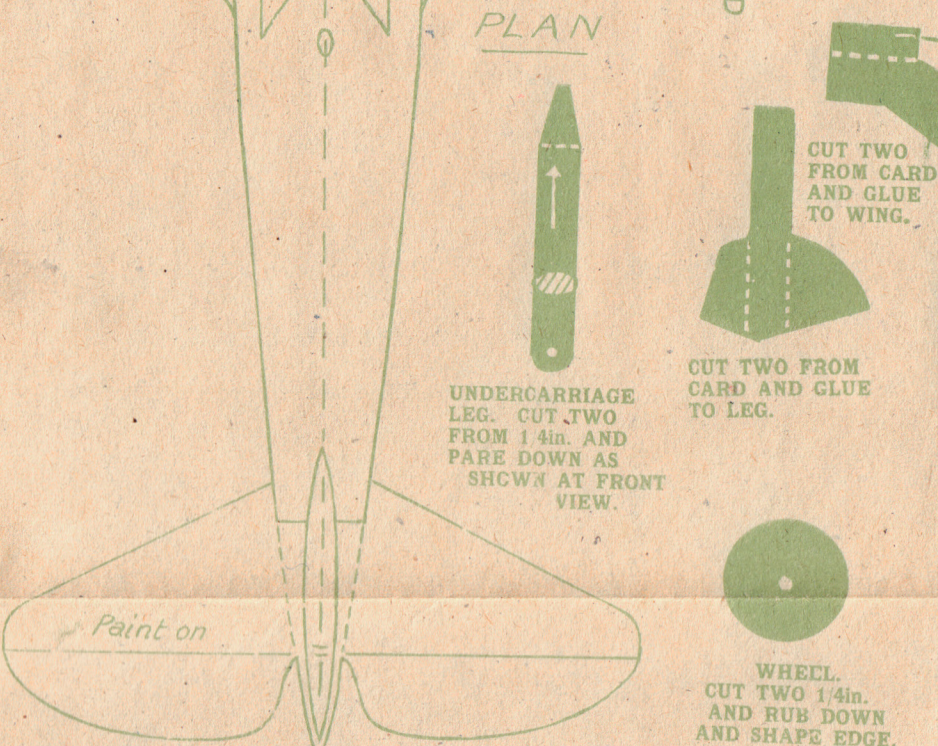
ONE G2 ONE G4
TWO GD6

The price is shown in Hobbies Weekly, March 1st, 1944, but is subject to revision. See the current edition of Hobbies Handbook, or write for price to Hobbies Limited, Dereham, Norfolk.

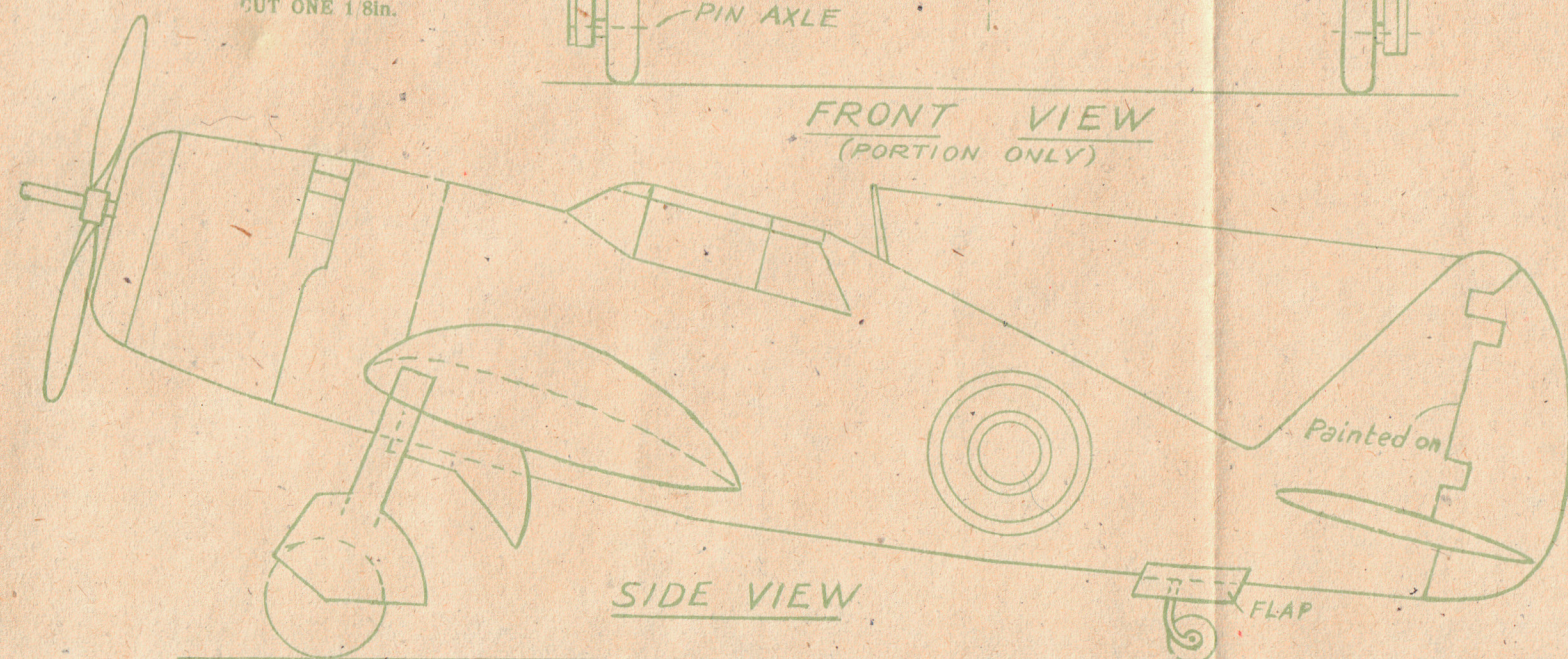
NOTE.—This design sheet is only presented free with the current issue of Hobbies and not with back numbers. Further copies may be obtained.



PLAN



FRONT VIEW
(PORTION ONLY)



MODEL THUNDERBOLT

DRAW out the shapes of the various patterns on the thickness of wood indicated with each. This can be done through carbon paper direct on to the board, or by taking a tracing and transferring it. The various parts are cut out with the fretsaw to the outline shape and then curved off as they should be with rasp, file and glasspaper. The final rubbing must be carefully done to preserve the proper balance.

The model is an exhibition model and shown with the wheels down. If you want it as in a flying position, the wheels can be omitted, but a different outline must be painted on the underside of the wings to show them in a retracted position. The pilot's cabin is not hollow, but the Perspex covering and metal frame have to be painted on.

If you want to show a proper hollow cockpit, you will have to cut away the centre piece of the fuselage in the wood accordingly. The cockpit can then be covered with transparent material and the metal framework painted on. The front of the fuselage, too, is flat and the engine will have to be painted behind the propeller. Experienced workers will probably like to sink a portion of the front of the fuselage to represent the engine inside the cowling ring around the propeller boss.

Apart from the shaping, the principal work is in the painting, using the camouflage colours for this fighter, and adding the roundels and markings in the usual way.

The construction of the parts can be seen from the several views on the sheet, and these should be followed carefully. Three pieces form the fuselage itself, each being cut from

$\frac{3}{8}$ in. wood. The centre piece is 7 $\frac{1}{2}$ ins. long, but the two outer pieces can be 6 $\frac{1}{2}$ ins. Glue the three together, then taper them down towards the tail as you see by the plan view. The dotted lines across at A, B and C, show what the shape of the hole will be according to the shaded section AA, BB and CC higher up on the sheet.

The slot which takes the root end of the wings must be slightly sloping to allow for the dihedral of the tilted wings themselves. Having cut the slots in the fuselage out, you should slope them downwards and inwards with a chisel so that the wings lift a little when they are fixed in place. The actual angle can be seen in the front view drawing.

The tailplane and rudder fin are added as two separate pieces. The former beds into the recess provided for it, and against the sides of the fuselage. If a gap occurs it should be filled up with putty or plastic wood, or even sawdust and glue to make a nice fairing. The upright fin portion in turn, beds down to the top of the fuselage, and should be stiffened up with two headless pins or gramophone needles driven half way into each of the pieces of wood.

The undercarriages are made up as independent units, then fixed to the fuselage. The main wheels are fixed on the inside of the undercarriage leg which is shaped to a flattened oval and the tapered top glued to the underside of the wing in the position shown in the front view. The tail wheel is fitted between two curled pieces of wire filed to a point at one end to allow them to be driven into the rear end of the fuselage.

The covering parts for these wheels when they are retracted normally

hang down. For the large wheel, a piece of card is cut to the shape shown, and glued to the outside of the leg. A second piece of card to provide the other half of the wheel if it were retracted is glued by a simple folded tab near the join of the wing and the fuselage. It can be seen in the front view hanging down behind the propeller blades. A similar small piece of thin card is glued along the side of the tail wheel.

The propeller blades are cut from four $\frac{1}{4}$ in. pieces shaped and tapered down in the usual way. The inner end is glued to the propeller hub, a tiny piece with a central opening, which in turn fits on to the axle. This axle is only $\frac{1}{16}$ in. diameter, and is sunk $\frac{1}{4}$ in. into the centre of the fuselage front. There is a considerable projection of this propeller boss, as can be seen in the side view.

The propellers, of course, are fixed, but if you want to make the model so that they rotate, then a metal rod will have to be fitted with a washer each side of the "prop" to prevent it turning off.

The position of the guns is seen in the front, and plan view. They consist of stiff pieces of wire let into the leading edge of the wings. A similar piece of wire is added to the aerial just behind the pilot's cabin (see side view) and a thin piece of cotton carried from it to the top of the tail.

The detail of these guns, aerial, etc., should not be added until the model has been painted, because they will only get damaged during that operation. Give the whole thing a thorough cleaning, then add the flat colours of paint according to the general scheme carried out in fighters.